



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,888	09/16/1999	VICTOR A. RIVAS		8050

7590 05/08/2003

JAMES C WRAY  
1493 CHAIN BRIDGE ROAD SUITE 300  
MCLEAN, VA 22101

[REDACTED] EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
2644	8

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/396,888	RIVAS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Laura A Grier	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 11-21 is/are allowed.  
 6) Claim(s) 1-6,8-10 and 22-25 is/are rejected.  
 7) Claim(s) 5, 7, and 26-29 is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . | 6) <input type="checkbox"/> Other: ____ .                                   |

**DETAILED ACTION**

1. The indicated allowability of claims 6, 10 and 23-25 is withdrawn in view of the newly discovered reference(s) to Mathews. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-2, and 8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryll in view of Mathews, U. S. Patent No. 5431170.

Regarding **claim 1**, Ryll disclose a pair of sport goggles that provides real time body monitoring information to user, wherein the information includes the heart rate of the user, which constitutes as a pair of eyeglasses for monitoring heart conditions (figure 1 and abstract); electronic circuitry (figures 1, 2 and 6 and col. 5, lines 57-65), and a battery, which indicates a power source (figure 2-reference 42). Ryll does disclose an infrared phototransistor for emitting light, and infrared detector module for receiving light (col. 5, lines 30-55, and figure 5). However, Ryll fails to specifically disclose a plurality of lighting emitting diodes on the glasses, and a plurality of photosensors on the glasses (herein, “LEDs and photosensors”, respectively). The examiner maintains that such LEDs and photosensors were well known in the art.

Regarding the LEDs and photosensors, in a similar field of endeavor, Mathews discloses a pulse responsive device which may be worn about the head of a user. Mathews device comprises a sensor unit including two light emitters and two light sensors (col. 3, lines 28-35), which constitutes as a plurality of LEDs and a plurality of photosensors.

Thus, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing a plurality of light emitters (LEDs) and light sensors (photosensors) for the purpose of enhancing eyewear for optimal functions as desired for analyzing the electrical signal of the output of the light emitter/light sensor on a continuous basis, regarding a particular parameter such as pulse rate, etc. as taught by Mathews.

Regarding **claim 2**, Ryll, and Mathews (herein, Ryll et al.) discloses everything claimed as applied above (see claim 1). Ryll further discloses a battery, which constitutes a power supply.

Regarding **claims 8 and 9**, Ryll et al. discloses everything claimed as applied above (see claim 1). Ryll discloses display (48) in respect to figure 8 that provides a display which may be used in sports goggles for indicated a sensed condition, including a numerical display of the user's heart rate and pulse (col. 6, lines 61-67 and col. 7, lines 1-41).

Regarding **claim 10**, Ryll et al. discloses everything claimed as applied above (see claim 1). Mathews further discloses mean of inputting preset data of the user to be used for comparing the sensed condition (col. 4, lines 4-54).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing inputting preset data of the user to be

Art Unit: 2644

used for comparing the sensed condition, providing optimal monitoring techniques of the users pulse rate.

Regarding **claim 6**, Ryll et al. discloses everything claimed as applied above (see claim 1). Mathews further discloses transmitting a sensed signal to a read-out device (col. 3, lines 42-44), which is indicative of a remote receiver.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing a radio transmitter for transmitting a sensed signal to the device located on the wrist of the user for providing free the sensed signal of noise as taught by Mathews or other desired reasons for the optimizing the function of the device.

**5. Claims 3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryll et al. and further in view of Vogt.

Regarding **claims 3 and 4**, Ryll et al. discloses everything claimed as applied above (see claim 1). However, Ryll fails to specifically disclose the power supply as a solar cell.

Regarding the solar cell, Vogt et al. discloses a pair of eyeglasses with a power supply consisting of at least one solar cell with a solar panel, and further Vogt discloses the solar cell in conjunction with a battery (col. 7, lines 20-33).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing a solar cell for the power source for the

purpose of utilizing the readily available solar energy and converting it into electrical energy and thus making the device of Ryll energy efficient.

6. **Claims 22-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryll et al.

Regarding **claim 22**, Ryll disclose a pair of sport goggles that provides real time body monitoring information to user, wherein the information includes the heart rate of the user, which constitutes as a pair of eyeglasses for monitoring heart conditions (figure 1 and abstract); electronic circuitry (figures 1, 2 and 6 and col. 5, lines 57-65), and a battery, which indicates a power source (figure 2-reference 42). Ryll does disclose an infrared phototransistor for emitting light, and infrared detector module for receiving light and the detector indicates change in the reflected light and thus transmits a signal to a ASIC control unit, wherein the heart rate is determined and/or measured (col. 5, lines 30-55, and figure 5). However, Ryll fails to specifically disclose a plurality of lighting emitting diodes on the glasses, and a plurality of photosensors on the glasses (herein, “LEDs and photosensors”, respectively). The examiner maintains that such LEDs and photosensors were well known in the art.

Regarding the LEDs and photosensors, in a similar field of endeavor, Mathews discloses a pulse responsive device which may be worn about the head of a user. Mathews’ device comprises a sensor unit including two light emitters and two light sensors (col. 3, lines 28-35), which constitutes as a plurality of LEDs and a plurality of photosensors. And as, parallel to the detector of Ryll, the light sensors of Mathew indicates a change in reflected according in respect to the transmitted signal (col. 3, lines 35-38).

Thus, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing a plurality of light emitters (LEDs) and light sensors (photosensors) for the purpose of emitting a light through a body tissue and receiving the light reflection in accordance of the condition of a user blood flow as taught by Mathews. Further, in a similar field of endeavor, Mortazavi, teaches the common practice of a LED and a photosensor for emitting a light output to a photosensor in response the sensed result of a user's heart rate (abstract and figure 2).

Regarding **claim 23**, Ryll et al. discloses everything claimed as applied above (see claim 22). Mathews further discloses mean of inputting preset data of the user to be used for comparing the sensed condition (col. 4, lines 4-54).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing inputting preset data of the user to be used for comparing the sensed condition, providing optimal monitoring techniques of the users pulse rate.

Regarding **claims 24-25**, Ryll et al. discloses everything claimed as applied above (see claim 23). Mathews further discloses transmitting a sensed signal to a read-out device (col. 3, lines 42-44), which is indicative of a remote receiver.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ryll by providing a radio transmitter for transmitting a sensed signal to the device located on the wrist of the user for providing free the sensed signal of

noise as taught by Mathews or other desired reasons for the optimizing the function of the device.

***Allowable Subject Matter***

7. **Claims 11-21** are allowed.
8. **Claims 5, 7and 26-29** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

The applicant essentially argues that the prior art previously used does not teach the claimed invention, in respect to the plurality of LEDs and the plurality of photosensors. The examiner has provided another reference of prior art that discloses the concept and teaches the limitations of the claimed invention. In respect to claims 3 and 4, the limitations of the solar power source, it is commonly known to use either a battery and/or a solar power source for providing power, particularly among small device providing little space for a batter of the like. Thus it would have been obvious to one skilled in the art to implement such technique where a battery is already being used for providing power. The art rejection of claims 3 and 4 is maintained.

***Citation of Pertinent Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Amano et al., U. S. Patent No. 6126595, discloses a device for diagnosing physiological state and device for controlling the same.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Application/Control Number: 09/396,888

Page 9

Art Unit: 2644

LAG

May 5, 2003



FORESTER W. ISEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600